

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

# NOTICE OF ACCEPTANCE (NOA)

SWISSPEARL / Cladding Corp. 215 South Highway 100, Suite 214 Solana Beach, CA 92037

### Scope:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER- Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: "SWISSPEARL Façade" Cement Composite Wall Panel System

APPROVAL DOCUMENT: Drawing No. C08-258, titled "Swisspearl Façade System Cement Composite Panel", sheets 1 through 31 of 31, prepared by CBuck Engineering, dated April 09, 2009, Revision #4, signed and sealed by James L. Buckner, P.E., on April 22, 2014 bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Section.

## MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

**LABELING:** Each panel shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises & renews NOA # 09-0115.05 and consists of this page 1, evidence submitted page E-1 as well as approval document mentioned above.

The submitted documentation was reviewed by Helmy A. Makar, P.E., M.S.

(MIAMI-DADE COUNTY)
APPROYED

He GA. Na Expiration Approval

NOA No. 14-0605.07 Expiration Date: 04/22/2019 Approval Date: 09/11/2014 Page 1

## SWISSPEARL / Cladding Corp.

#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### 1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 09-0115.05

#### A. DRAWINGS

1. Drawing No. C08-258, titled "Swisspearl Façade System Cement Composite Panel", sheets 1 through 31 of 31, prepared by CBuck Engineering, dated April 09, 2009, signed and sealed by James L. Buckner, P.E., on April 10, 2009.

#### B. TESTS

1. Test report on Large Missile Impact Test, Cyclic Wind Pressure Test and Uniform Static Air Pressure Test on Swisspearl Fiber-Cement Façade Panel System, prepared by Architectural Testing, Report No. 77956.01-109-18, dated 12/18/2008, signed and sealed by Michael D. Stremmel, P.E.

## C. CALCULATIONS

1. Calculations titled "Eternit Wall Panel System", dated March 09, 2009, 9 pages, prepared by CBuck Engineering, signed and sealed by James L. Buckner, P.E., on March 09, 2009.

## D. QUALITY ASSURANCE

1. By Miami-Dade County Building Code Compliance Office.

#### E. MATERIAL CERTIFICATIONS

1. None.

### 2. NEW EVIDENCE SUBMITTED

#### A. DRAWINGS

1. Drawing No. C08-258, titled "Swisspearl Façade System Cement Composite Panel", sheets 1 through 31 of 31, prepared by CBuck Engineering, dated April 09, 2009, Revision #4, signed and sealed by James L. Buckner, P.E., on April 22, 2014.

## B. TESTS

1. None.

#### C. CALCULATIONS

1. None.

#### D. QUALITY ASSURANCE

1. By Miami-Dade County Department of Regulatory and Economic Resources.

#### E. MATERIAL CERTIFICATIONS

1. None.

Helmy A. Makar, P.E., M.S. Product Control Unit Supervisor

NOA No. 14-0605.07 Expiration Date: 04/22/2019 Approval Date: 09/11/2014

E - 1

# **Engineering Report & Drawings** Of SWISSPEARL"/ Cladding Corp. **Façade System**

For

Miami-Dade Notice of Acceptance

Category:

**Panels** 

Sub - Category:

Wall

**System Support Type C(1):** 

CMU Concrete Block Wall

Vertical Steel Support

System Support Type S(1):

Product:

SWISSPEARL® Façade System

**Covering Material:** 

Cement Composite Panel

Frame Material:

Steel

**Panel Dimensions:** 

48" x 119-5/8"

**SWISSPEARL®** Cladding Corp.

215 South Highway 100, Suite 214 Solana Beach, CA 92037

# Prepared by:

James L. Buckner, P.E., SECB Florida Professional Engineer # 31242 Project Manager: Youry Demosthenes

> Report No.: 08-258 Date: 12/03/08 Revised Date: 04 / 02 / 14

PRODUCT REVISED as complying with the Florida

**Duilding Code** Acceptance No 14 - 0605.07 Expiration Date 04

Miami Dade Product Control

Contents:

**Cover Page** 

System Support Type C(1) System Support Type S(1)

Page 1 Page 2-16

Page 17-31

TITLE: SWISSPEARL FAÇADE SYSTEM

**COVER PAGE** 

ETERNIT (SCHWEIZ) AG

REV: 4

CBUCK Engineering

DISTRIBUTOR: Cladding Corp.

215 South Highway 100, Suite 214

Solana Beach, CA 92037

DATE: 04/09/09 PAGE #: 1 OF 31 C08-258 REPORT #: DRAWN BY: YD

AMES L. BUCKNER, P.E.

COA #8064 CBUCK, Inc. 1399 N. Killian Dr., Ste 4 W. Palm Beach, FL 33403

(561) 491-9927

#### 0.0 System Support Type C(1): CMU Concrete Block Wall

#### 1.0 Product

Eternit (Schweiz) AG 1.1 Manufacturer

SWISSPEARL® Façade System 1.2 Product Name

**Panels** 1.3 Category

Walls 1.4 Sub Category

## 2.0 Evaluation Scope:

#### 2.1 Evaluation Criteria:

2.1.1 Florida Building Code (FBC) 2010

Code Section: High Velocity Hurricane Zone (HVHZ)

2.1.2 Miami-Dade Building Code Compliance Office (BCCO) Checklist

## 2.2 Properties Evaluated:

2.2.1 Wind Resistance Properties

2.2.1.1 Uniform Static Air Pressure

2.2.1.2 Large Missile Impact

2.2.1.3 Cyclic Wind Pressure

Fire Resistance Properties 2.2.2

2.2.3 Panel Material Properties

#### 2.3 Limits of Evaluation:

This product is limited to compliance with the criteria in section 2.1 and properties in section 2.2 of this report.

#### 3.0 Evaluated Uses:

SWISSPEARL Wall Panels are used as nonbearing exterior (façade) wall panels.

- 4.0 Support: The Support assembly is designed by others and shall have the following minimum Characteristics:
  - 4.1 Material:

**CMU Concrete Block** 

4.2 Filler:

**Grout Filled** 

#### 5.0 Product Description:

#### 5.1 General:

The SWISSPEARL cement composite façade wall panels are riveted to a steel sub-frame. The steel sub-frame is fastened into the CMU Concrete Block support Wall.

#### 5.2 Panel Dimensions:

5.2.1 Length (Maximum):

9 ft 11-5/8in (3040 mm)

Width (Maximum): 5.2.2

4 ft

(1220 mm)

5.2.3 Thickness:

5/16 in

(8 mm)

PRODUCT REVISED as complying with the Florida Building Code

Acceptance No 14 Expiration Date Od

Miami Duce Product Control

TITLE: SWISSPEARL FAÇADE SYSTEM

PRODUCT DETAILS

CBUCK Engineering

COA #8064 CBUCK, Inc.

1399 N. Killian Dr., Ste 4 W. Palm Beach, FL 33403 DISTRIBUTOR:

Cladding Corp.

215 South Highway 100, Suite 214 Solana Beach, CA 92037

DATE: 04/09/09 2 OF 31 PAGE #: C08-258-C(1) REPORT #:

DRAWN BY: YD

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AMES L. BUCKNER, P.E

#### 6.0 Performance

#### 6.1 Wind Resistance:

6.1.1 Design Pressure:

**Positive** 

+63 psf (+ 3 kPa.)

Negative

-63 psf (-3 kPa.)

Span:

14.5" o.c.

(368 mm)

Span Condition:

3 or more spans

#### **Uniform Static Air Pressure Test:** 6.1.2

6.1.2.1 Standard

**TAS 203** 

6.1.2.2 Results:

Pass

#### 6.1.3 Cyclic Air Pressure Test

6.1.3.1 Standard:

**TAS 202** 

6.1.3.2 Results:

Pass

## 6.2 Impact Rating:

6.2.1 Large Missile Impact:

6.2.2 Standard: **TAS 201** 

6.2.3 Results Passed

6.2.4 Test Laboratory:

**Architectural Testing Institute** 

#### 6.3 Fire Resistance

6.3.1 Test Standard:

ASTM E - 84 / ASTM E - 136

6.3.2 Results:

Flame Spread:

0

Smoke Density:

15

#### 6.4 Panel Material Properties

6.4.1 Test Standard:

ASTM C1185 - 95

6.4.2 Results

Passed

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#### Limitations of Use: 7.0

- Maximum Panel span 14.5 in. 7.1
- Maximum Panel Deflection shall be L/180. 7.2
- Diaphragm and axial load capacity is outside the scope of this evaluation. 7.3
- This evaluation is limited to the wall panel, the vertical and horizontal hat and Zee 7.4 channels, and the fasteners. The structural properties of all other structural items are outside the scope of this evaluation and should be reviewed by the structural plans examiner of the requisite building department.

FLORIDA\P.E. #3,1242

TITLE: SWISSPEARL FAÇADE SYSTEM

**PERFORMANCE** 

CBUCK Engineering

COA #8064 CBUCK, Inc. 1399 N. Killian Dr., Ste 4 W. Palm Beach, FL 33403

(561) 491-9927

DISTRIBUTOR:

Cladding Corp.

215 South Highway 100, Suite 214 Solana Beach, CA 92037

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#### 8.0 Code Compliance

8.1 Product meets the High Velocity Hurricane Zone (HVHZ) Requirements of the Florida Building Code (FBC) 2010 for the properties evaluated.

#### 9.0 Identification:

9.1 Each Panel shall bear a permanent label with the manufacturer's name or logo, manufacturing plant's city, state and the statement reading "Miami-Dade County Product Control Approved" is to be located on each panel.

#### 10.0 Installation:

- 1. The Horizontal Zee Channels are spaced 34-3/4 in o.c vertically on the wall. These are fastened to the CMU support at 16 in o.c. (Drawing Page 8) using designated Fastener (section 11.2)
- 2. Vertical Hat Channels are spaced 10 ft on center (Drawing Page 9). They are fastened at the horizontal Zee channels (34-3/4 in o.c.) using designated fastener (section 11.3).
- 3. Vertical Zee Channels are fastened to the Horizontal Zee Channels between the Hat Channels at 14.5 in o.c. (See Drawing Page 9). These are fastened at the horizontal Zee channels (34-3/4 in o.c.) using designated fastener (section 11.3).
- 4. SWISSPEARL cement composite panels are fastened to the vertical hats channels (at each end) and vertical Zee channels spaced between the hat channels (Drawing Page 10). These are fastened to each support nominally 14.5 in o.c in the horizontal direction, and nominally 8 in o.c. in the vertical direction.

#### 11.0 Components

#### 11.1 Panel:

11.1.1 Material Fiber Reinforced Concrete
11.1.2 Thickness: 5/16 in (8 mm)

#### 11.2 Fasteners:

Fastens the horizontal Zee's to the CMU block support system

 11.2.1 Manufacturer:
 Tapcon

 11.2.2 Type:
 Masonry Fastener

 11.2.3 Size:
 1/4 in – 14

 11.2.4 Imbedment:
 1-3/4" Minimum

 11.2.5 Edge Distance:
 1-1/4" Minimum

 11.2.6 Head:
 Hex head

11.2.6 Head: Hex head
11.2.7 Corrosion Resistance: Stainless Steel

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 14-0605.07
Expiration Date 04 122 2014

Mismi Dade Product Control

TITLE: SWISSPEARL FAÇADE SYSTEM

LIMITS OF USE, IDENTIFICATION AND INSTALLATION INSTRUCTIONS

/CBUCK Engineering

CBUCK, Inc. COA #8064 1399 N. Killian Dr., Ste 4 W. Palm Beach, FL 33403 (561) 491-9927 DISTRIBUTOR:

Cladding Corp. 215 South Highway 100, Suite 214 Solana Beach, CA 92037 DATE: 04/09/09
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AMES L. BUCKNER, P.E FLORIDA P.E. #31242 A.J. 7.2. 14

#### 11.3 Fasteners:

Fastens the vertical Hats and Zee's to the horizontal Zee's. Fastens the cement composite panel to the steel vertical Hats and Zee's.

SFS 11.3.1 Manufacturer: Rivets 11.3.2 Type: 11.3.3 Designation: SSO-D15 4.0 x 18 mm 11.3.4 Size:

Stainless Steel 11.3.5 Corrosion Resistance: 8 in o.c. Maximum 11.3.6 Vertical fastener spacing: 11.3.7 Horizontal fastener spacing: 16 in o.c. Maximum

### 11.4 Horizontal Supports

Zee channel that is fastened to the steel support. The Vertical Hats and Zee channels are attached to this.

Zee Channel 11.4.1 Type: 3-1/8 in. 11.4.2 Width: 1-9/16 in. 11.4.3 Height: 11.4.4 Thickness: 16 Gauge Steel 11.4.5 Material:

Galvanized G90 11.4.6 Corrosion Resistance: 34-3/4 in o.c. 11.4.7 Spacing:

#### 11.5 Vertical Supports:

Hat channel that is fastened to the Horizontal Zee channel. The cement composite panels are fastened to this support.

Hat Channel 11.5.1 Type: 5-1/2 in 11.5.2 Width: 1-1/2 in 11.5.3 Height: 16 Gauge 11.5.4 Thickness: 11.5.5 Material: Steel

Galvanized G90 11.5.6 Corrosion Resistance:

9 ft 11-5/8 in o.c. (at panel joints) 11.5.7 Spacing:

Zee channel that is fastened to the Horizontal Zee channel. The cement composite panels are fastened to this support.

Zee Channel 11.5.8 Type: 3-1/8 in. 11.5.9 Width: 11.5.10 Height: 1-9/16 in. 11.5.11 Thickness: 16 Gauge

Steel 11.5.12 Material: 11.5.13 Corrosion Resistance: Galvanized G90

14-1/2 in o.c. 11.5.14 Spacing:

Minmi Dad roduct Contro

Expiration Date &

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Building Code

as complying with the Florida

Acceptance No 14-0605.07

TITLE: SWISSPEARL FAÇADE SYSTEM

MATERIAL SPECIFICATIONS AND COMPONENT DESCRIPTION

CBUCK Engineering

CBUCK, Inc. COA #8064 1399 N. Killian Dr., Ste 4 W. Palm Beach, FL 33403 (561) 491-9927

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## 11.6 Ventilation profile (Optional):

Perforated L piece that goes in multiple edge locations.

98.5 in. 11.6.1 Length: 3-1/8 in. 11.6.2 Width: 1-9/16 in. 11.6.3 Height: 0.027 in 11.6.4 Thickness: Aluminum

11.6.5 Material:

## 11.7 L-Flashing (Optional):

Perforated L piece that goes in multiple edge locations.

98.5 in. 11.7.1 Length: 3-1/8 in. 11.7.2 Width: 1-9/16 in. 11.7.3 Height: 0.027 in 11.7.4 Thickness: Stainless Steel 11.7.5 Material:

#### 12.0 Reference Data:

#### 12.1 Structural Performance

12.1.1 TAS 201, 202 & 203, Large Missile Impact Test, Air Infiltration Test, Uniform Static Air Pressure Test & Water Resistant Test. & Cyclic Wind Pressure Loading, respectively.

By: Architectural Testing, Inc. Report No.: 77956.01-109-18

Dated: 4/7/08

Revised Date: 12/08/08

#### 12.2 Fire Performance

12.2.1 ASTM E-84 & ASTM E-136 Flame Spread Index /Smoke Density

By: Architectural Testing, Inc. (SGS U.S.) Report No.: 170982

Dated: 11/20/02

## 12.3 Material properties

12.3.1 ASTM C 1185-95 Test Specification for Non-Asbestos fiber-Cement Flat Sheet, roofing and

Siding Shingles, and Clapboards

By: Architectural Testing, Inc. Report No.: 01.42233.01

Dated: 11/20/02

PRODUCT REVISED as complying with the Florida Building Code

Acceptance No 4 Expiration Date 04

Miami Dase Product Control

TITLE: SWISSPEARL FAÇADE SYSTEM

MATERIAL SPECIFICATIONS AND COMPONENT DESCRIPTION

CBUCK Engineering

COA #8064

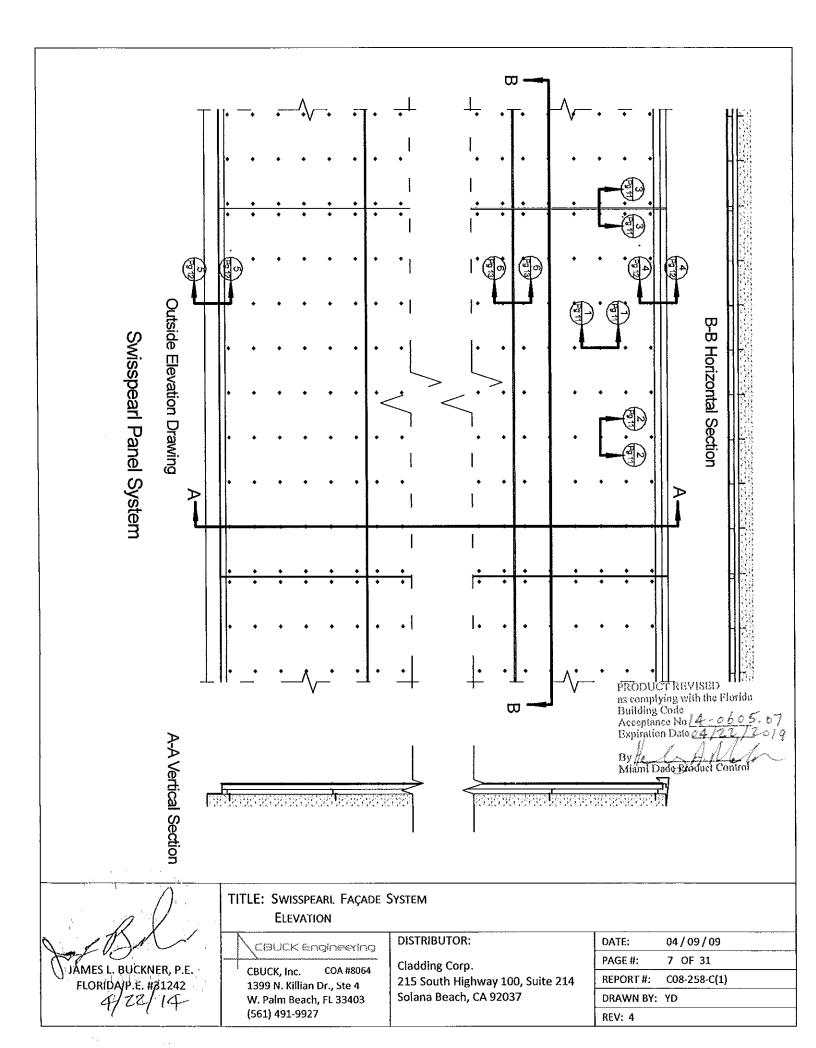
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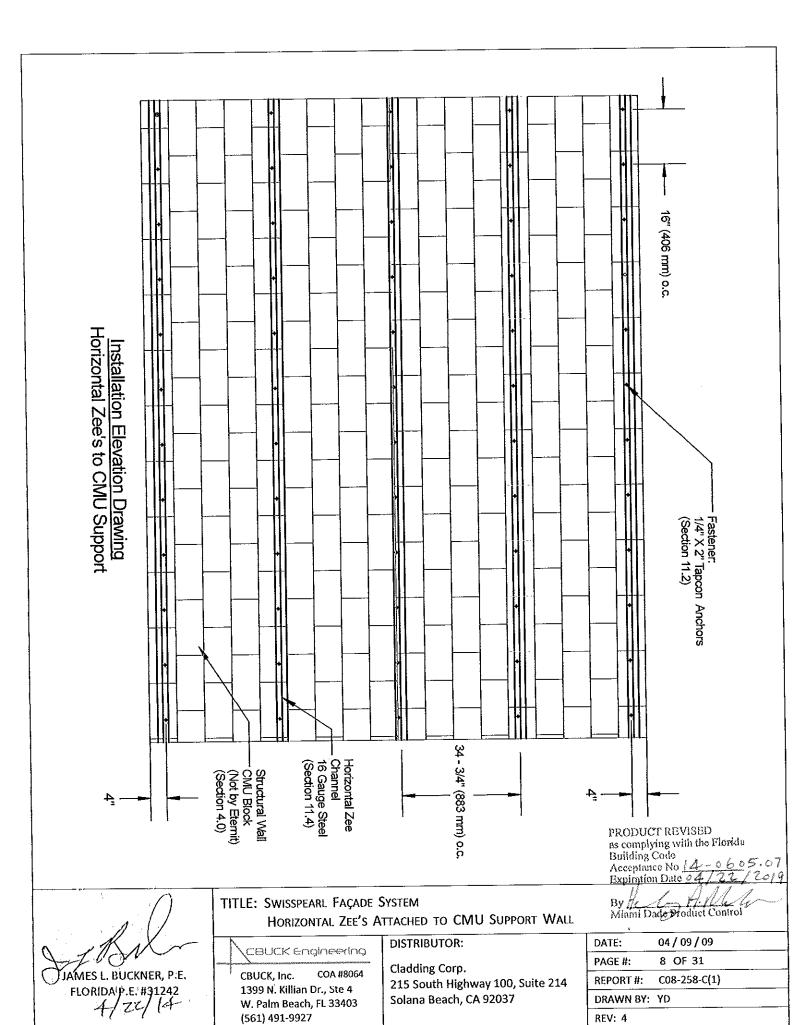
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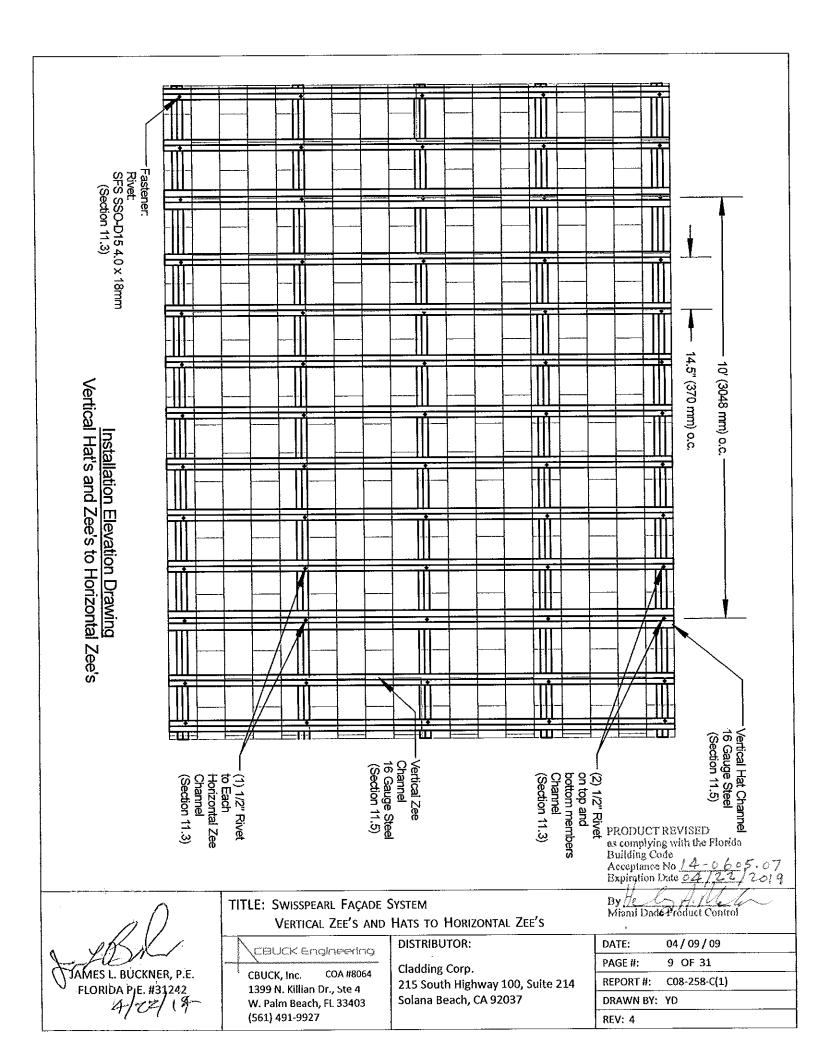
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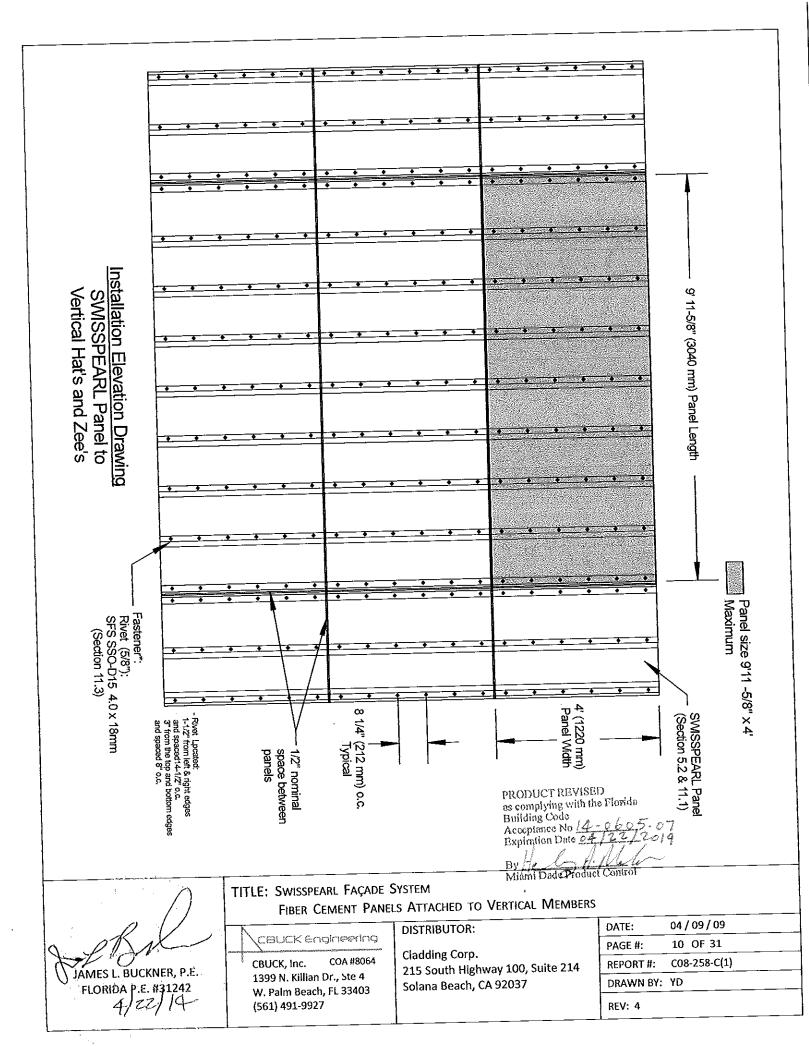
FLORIDA P.E. #31242

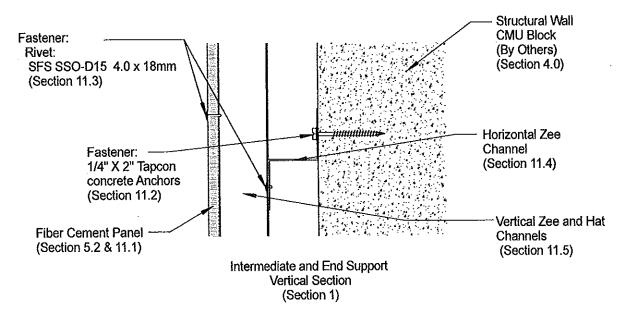
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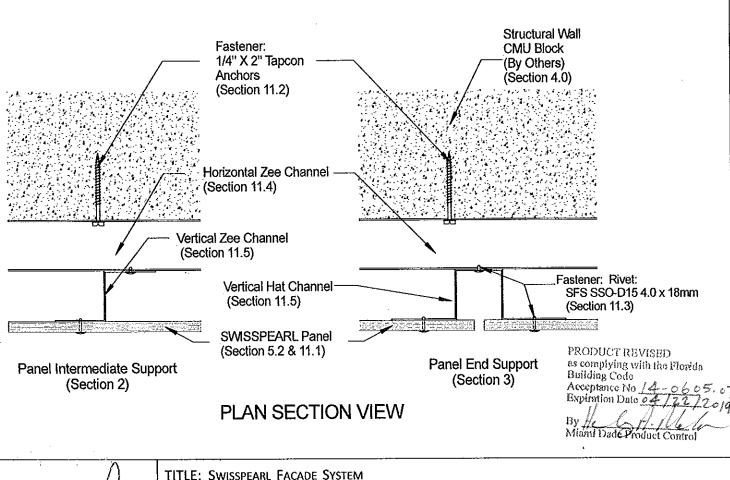








## SIDE SECTION VIEW

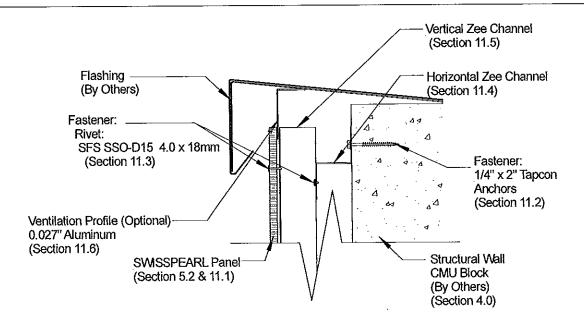


JAMES L. BUCKNER, P.E. FLORIDA P.E. #31242 TITLE: SWISSPEARL FAÇADE SYSTEM
INTERMEDIATE AND END JOINTS

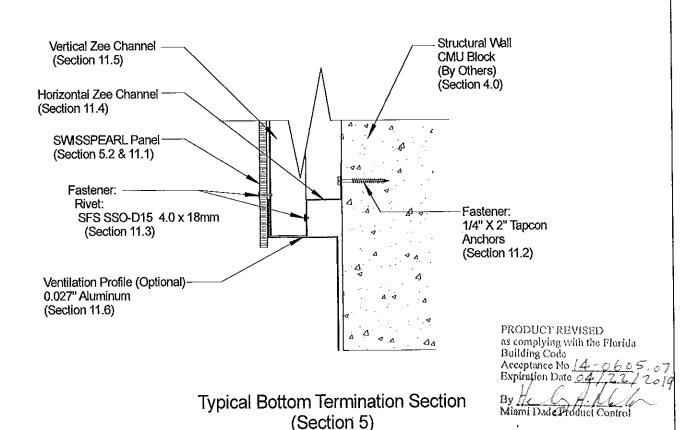
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CBUCK, Inc. COA #8064 1399 N. Killian Dr., Ste 4 W. Palm Beach, FL 33403 (561) 491-9927 **DISTRIBUTOR:** 

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# Typical Top Termination Section (Section 4)



VAMES L. BUCKNER, P.E. FLORIDA P.E. #31242 4-721 14 TITLE: SWISSPEARL FAÇADE SYSTEM
BASE AND TOP DETAILS

CBUCK Engineering

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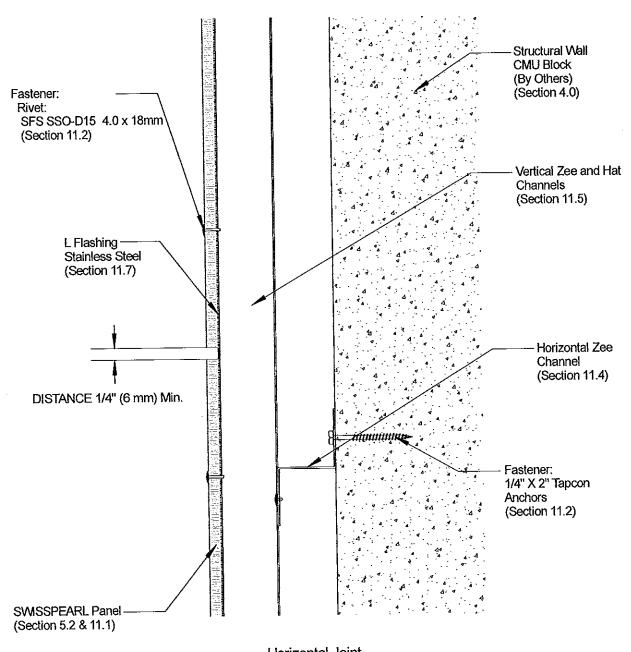
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Horizontal Joint Vertical Section (Section 6)

PRODUCT REVISED as complying with the Florida Building Code

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Miami Dade Product Contro

SIDE SECTION VIEW

TITLE: SWISSPEARL FAÇADE SYSTEM HORIZONTAL JOINT DETAIL

CBUCK Engineering

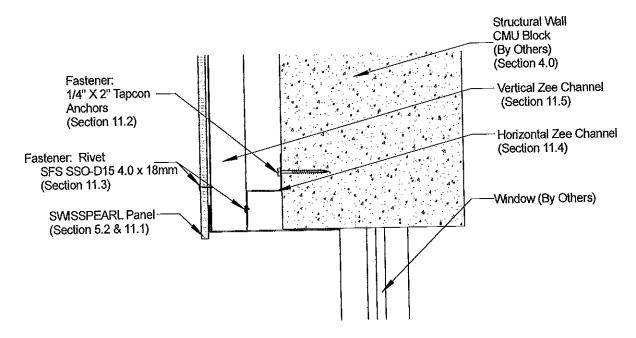
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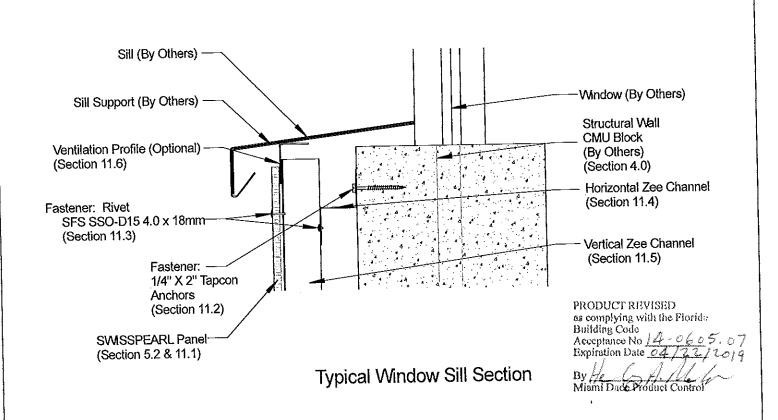
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FLORIDA P.E. #31242 4/22/14



Typical Window Head Section



AMES L. BUCKNER, P.E. FLORIDA P.E. #31242 TITLE: SWISSPEARL FAÇADE SYSTEM
WINDOW, SEAL AND HEAD DETAILS

CBUCK Engineering

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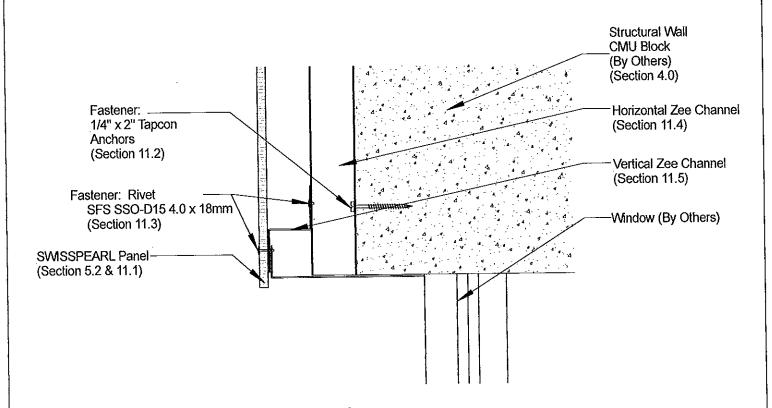
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Typical Window Jam Section

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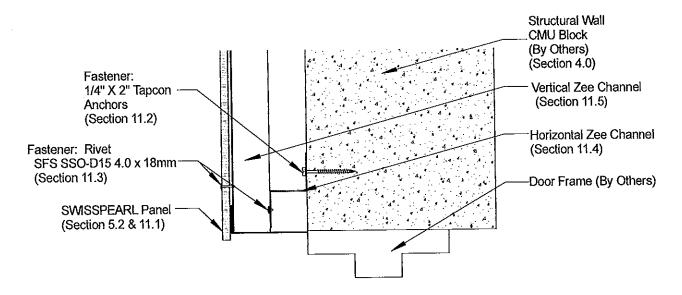
Miami Dada Product Control

TITLE: SWISSPEARL FAÇADE SYSTEM WINDOW JAMB DETAIL

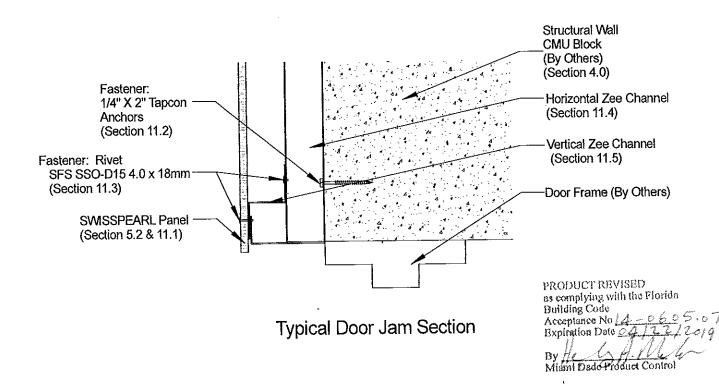
JAMES L. BUCKNER, P.E. FLORIDA P.E. #31242 A ZZZ (4 CBLICK Engineering

CBUCK, Inc. COA #8064 1399 N. Killian Dr., Ste 4 W. Palm Beach, FL 33403 (561) 491-9927 DISTRIBUTOR:

Cladding Corp. 215 South Highway 100, Suite 214 Solana Beach, CA 92037 DATE: 04/09/09
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Typical Door Head Section



JAMES L. BUCKNER, P.E. FLORIDA P.E. #31242 44 ZZ/ 14 TITLE: SWISSPEARL FAÇADE SYSTEM

DOOR HEAD AND JAMB DETAILS

CBUCK Engineering

CBUCK, Inc. COA #8064 1399 N. Killian Dr., Ste 4 W. Palm Beach, FL 33403 (561) 491-9927 DISTRIBUTOR:

Cladding Corp. 215 South Highway 100, Suite 214 Solana Beach, CA 92037 DATE: 04/09/09

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DRAWN BY: YD

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## 0.0 System Support Type S(1):

# **Vertical Steel Support**

#### 1.0 Product

Eternit (Schweiz) AG 1.1 Manufacturer

SWISSPEARL® Façade System 1.2 Product Name

1.3 Category

**Panels** 

1.4 Sub Category

Walls

#### 2.0 Evaluation Scope:

#### 2.1 Evaluation Criteria:

2.1.1 Florida Building Code (FBC) 2010

Code Section: High Velocity Hurricane Zone (HVHZ)

2.1.2 Miami-Dade Building Code Compliance Office (BCCO) Checklist

#### 2.2 Properties Evaluated:

2.2.1 Wind Resistance Properties

2.2.1.1 Uniform Static Air Pressure

2.2.1.2 Large Missile Impact

2.2.1.3 Cyclic Wind Pressure

2.2.2 Fire Resistance Properties

2.2.3 Panel Material Properties

#### 2.3 Limits of Evaluation:

This product is limited to compliance with the criteria in section 2.1 and properties in section 2.2 of this report.

### 3.0 Evaluated Uses:

SWISSPEARL Wall Panels are used as nonbearing exterior (façade) wall panels.

- 4.0 Support: The Support assembly is designed by others and shall have the following minimum Characteristics:
  - 4.1 Studs

4.1.1 Material:

Steel

4.1.2 Thickness:

16 Ga. (0.062 in)

Face Width: 4.1.3

2-1/4 in Minimum

4.1.4 Spacing: 16 in Maximum

4.2 Sheathing

4.2.1 Material: DensGlass

4.2.2 Thickness:

Type:

1/2 in

PRODUCT REVISED as complying with the Florida

Building Code Acceptance No /

Expiration Date OZ

Hex Head Screws, Self Tapping

4.3.2 Size:

4.3 Sheathing Fasteners

4.3.1

#6 x 1-1/2 in

Corrosion Resistance: 4.3.3

304 Stainless Steel

4.3.4 Fastener spacing: 8 in o.c. at each stud

Minmi Dade Product Contro

TITLE: SWISSPEARL FAÇADE SYSTEM **PRODUCT DETAILS** 

CBUCK Engineering

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FLORIDA P.E. #3

COA #8064 CBUCK, Inc. 1399 N. Killian Dr., Ste 4 W. Palm Beach, FL 33403 (561) 491-9927

#### 5.0 Description:

## 5.1 General:

The SWISSPEARL cement composite façade wall panels are riveted to a steel sub-frame. The steel sub-frame is fastened into the Steel stud support Wall.

#### 5.2 Panel Dimensions:

9 ft 11-5/8in (3040 mm) Length (Maximum): 5.2.1 (1220 mm) 4ft Width (Maximum): 5/16 in (8 mm) Thickness: 5.2.3

#### 6.0 Performance

#### 6.1 Wind Resistance:

**Positive** +63 psf (+ 3 kPa.) 6.1.1 Design Pressure: -63 psf (- 3 kPa.) Negative

Span:

14.5" o.c.

(386 mm)

**Span Condition:** 

3 or more spans

#### **Uniform Static Air Pressure Test:** 6.1.2

**TAS 203** 6.1.2.1 Standard Pass 6.1.2.2 Results:

#### 6.1.3 Cyclic Air Pressure Test

**TAS 202** 6.1.3.1 Standard: 6.1.3.2 Results: Pass

#### 6.2 Impact Rating:

6.2.1 Large Missile Impact:

6.2.2 Standard: **TAS 201** 

Results 6.2.3

Passed

#### 6.3 Fire Resistance

6.4.2

Test Standard: 6.3.1

ASTM E - 84 / ASTM E - 136

5.2.4 Results:

Flame Spread: **Smoke Density:** 

0 15

### 6.4 Panel Material Properties

6.4.1 Test Standard: Results:

ASTM C1185 - 95

as complying with the Florida Building Code

Acceptance No 14-0605 Expiration Date 04/22

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#### Limitations of Use: 7.0

- 7.1 Maximum Panel span 14.5 in.
- Maximum Panel Deflection shall be L/180. 7.2
- Diaphragm and axial load capacity is outside the scope of this evaluation. 7.3

**Passed** 

This evaluation is limited to the wall panel, the vertical and horizontal hat and Zee 7.4 channels, and the fasteners. The structural properties of all other structural items (beams, columns, purlins, fascia supports etc.) are outside the scope of this evaluation and should be reviewed by the structural plans examiner of the requisite building department.

JAMES L. BUCKNER. P.E.

TITLE: SWISSPEARL FAÇADE SYSTEM **PERFORMANCE** 

CBUCK Engineering

COA #8064 CBUCK, Inc. 1399 N. Killian Dr., Ste 4 W. Palm Beach, FL 33403

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#### 8.0 Code Compliance

8.1 Product meets the High Velocity Hurricane Zone (HVHZ) Requirements of the Florida Building Code (FBC) 2010 for the properties evaluated.

#### 9.0 Identification:

9.1 Each Panel shall bear a permanent label with the manufacturer's name or logo, manufacturing plant's city, state and the statement reading "Miami-Dade County Product Control Approved" is to be located on each panel.

#### Installation: 10.0

- The Horizontal Zee Channels are spaced 34-3/4 in o.c vertically on the wall. These are fastened to the Steel support at each stud (16 in o.c.) (Drawing Page 23) through the Dens Glass using designated Fastener (section 11.2).
- Vertical Hat Channels are spaced 10 ft on center (Drawing Page 24). They are fastened at 2. the horizontal Zee channels (34-3/4 in o.c.) using designated fastener (section 11.3).
- Vertical Zee Channels are fastened to the Horizontal Zee Channels between the Hat 3. Channels at 14.5 in o.c. (See Drawing Page 24). These are fastened at the horizontal Zee channels (34-3/4 in o.c.) using designated fastener (section 11.3).
- SWISSPEARL cement composite panels are fastened to the vertical hats channels (at each 4. end) and vertical Zee channels spaced between the hat channels (Drawing Page 25). These are fastened to each support nominally 14.5 in o.c in the horizontal direction, and nominally 8 in o.c. in the vertical direction.

#### 11.0 Components

#### 11.1 Panel:

11.1.1 Material

Cement reinforced composite

11.1.2 Thickness:

5/16 in (8 mm)

## 11.2 Fasteners:

Fastens the horizontal Zee's to the Steel Stud support system

11.2.1 Type:

**Self Tapping Screw** 

11.2.2 Size:

#10 x 2 in

2

11.2.4 Head:

Hex head

11.2.5 Corrosion Resistance:

11.2.3 Number per Intersection:

Stainless Steel

#### 11.3 Fasteners:

Fastens the vertical Hats and Zee's to the horizontal Zee's.

Fastens the cement composite panel to the steel vertical Hats and Zee's.

11.3.1 Manufacturer:

SFS

11.3.2 Type:

Rivets

11.3.3 Designation:

SSO-D15

**Building Code** Acceptance No 14

11.3.4 Size:

4.0 x 18 mm

11.3.5 Corrosion Resistance:

Stainless Steel

11.3.6 Vertical fastener spacing:

8 in o.c. Maximum

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Expiration Date 24

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11.3.7 Horizontal fastener spacing:

16 in o.c. Maximum

TITLE: SWISSPEARL FAÇADE SYSTEM

LIMITS OF USE, IDENTIFICATION AND INSTALLATION INSTRUCTIONS

CBUCK Engineering

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FLORIDA F

#### 11.4 Horizontal Supports

Zee channel that is fastened to the steel support. The Vertical Hat and Zee channels are attached to this.

 11.4.1 Type:
 Zee Channel.

 11.4.2 Width:
 3-1/8 in.

 11.4.3 Height:
 1-9/16 in.

 11.4.4 Thickness:
 16 Gauge

 11.4.5 Material:
 Steel

11.4.6 Corrosion Resistance: Galvanized G90 11.4.7 Spacing: 34-3/4 in o.c.

#### 11.5 Vertical Supports:

Hat channel that is fastened to the Horizontal Zee channel. The cement composite panels are fastened to this support.

 11.5.1 Type:
 Hat Channel

 11.5.2 Width:
 5-1/2 in

 11.5.3 Height:
 1-1/2 in

 11.5.4 Thickness:
 16 Gauge

 11.5.5 Material:
 Steel

11.5.6 Corrosion Resistance: Galvanized G90

11.5.7 Spacing: 9 ft 11-5/8 in o.c. (at panel joints)

Zee channel that is fastened to the Horizontal Zee channel. The cement composite panels are fastened to this support.

 11.5.8 Type:
 Zee Channel

 11.5.9 Width:
 3-1/8 in.

 11.5.10 Height:
 1-9/16 in.

 11.5.11 Thickness:
 16 Gauge

 11.5.12 Material:
 Steel

11.5.13 Corrosion Resistance: Galvanized G90 11.5.14 Spacing: 14-1/2 in o.c.

## 11.6 Ventilation profile (Optional):

Perforated L piece that goes in multiple edge locations.

 11.6.1 Length:
 98.5 in.

 11.6.2 Width:
 3-1/8 in.

 11.6.3 Height:
 1-9/16 in.

 11.6.4 Thickness:
 0.027 in

 11.6.5 Material:
 Aluminum

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Acceptance No 14-06
Expiration Date 04-72

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TITLE: SWISSPEARL FAÇADE SYSTEM

MATERIAL SPECIFICATIONS AND COMPONENT DESCRIPTION

CBUCK Engineering

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## 11.7 L-Flashing (Optional):

Perforated L piece that goes in multiple edge locations.

11.7.1 Length:

98.5 in.

11.7.2 Width:

3-1/8 in.

11.7.3 Height:

1-9/16 in.

11.7.4 Thickness:

0.027 in

11.7.5 Material:

Stainless Steel

#### 12.0 Reference Data:

## 12.1 Structural Performance

12.1.1 TAS 201, 202 & 203, Large Missile Impact Test, Air Infiltration Test, Uniform Static Air Pressure Test & Water Resistant Test. & Cyclic Wind Pressure Loading, respectively.

By: Architectural Testing, Inc. Report No.: 77956.01-109-18

Dated: 4/7/08

Revised Date: 12/08/08

#### 12.2 Fire Performance

12.2.1 ASTM E-84 & ASTM E-136 Flame Spread Index /Smoke Density

By: Architectural Testing, Inc. (SGS U.S.)

Report No.: 170982 Dated: 11/20/02

#### 12.3 Material properties

12.3.1 ASTM C 1185-95 Test Specification for Non-Asbestos fiber-Cement Flat Sheet,

roofing and Siding Shingles, and Clapboards

By: Architectural Testing, Inc. Report No.: 01.42233.01

Dated: 11/20/02

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TITLE: SWISSPEARL FAÇADE SYSTEM

MATERIAL SPECIFICATIONS AND COMPONENT DESCRIPTION

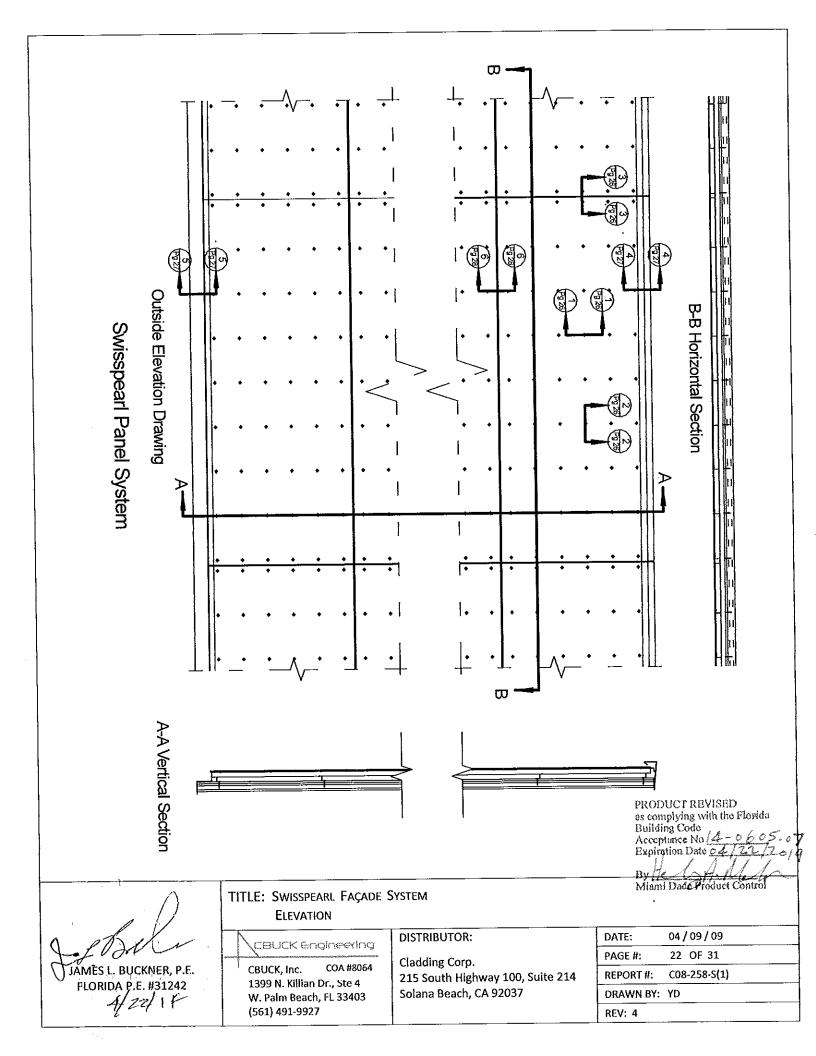
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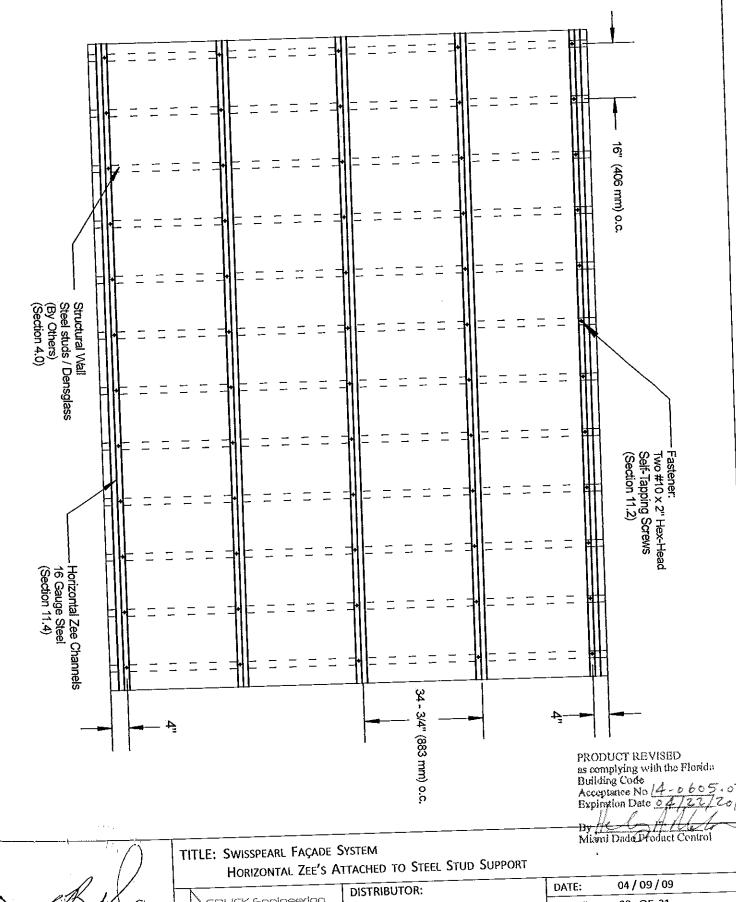
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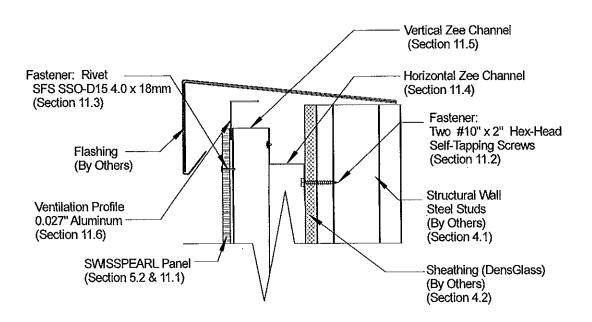


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FLORIDA P.E. #31242
A/CZ/

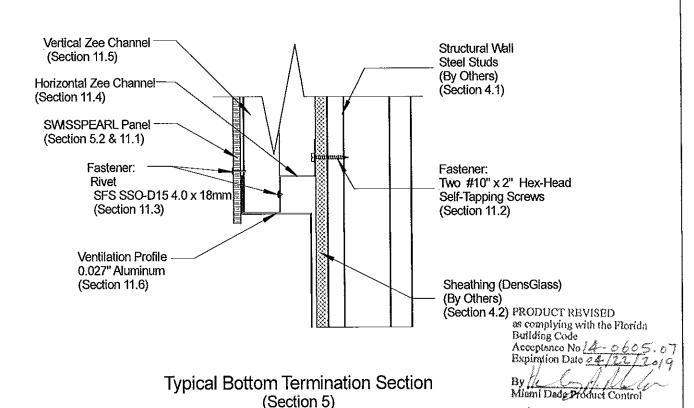
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Typical Top Termination Section (Section 4)



TITLE: SWISSPEARL FAÇADE SYSTEM

BASE AND TOP DETAILS TO STEEL STUD SUPPORTS

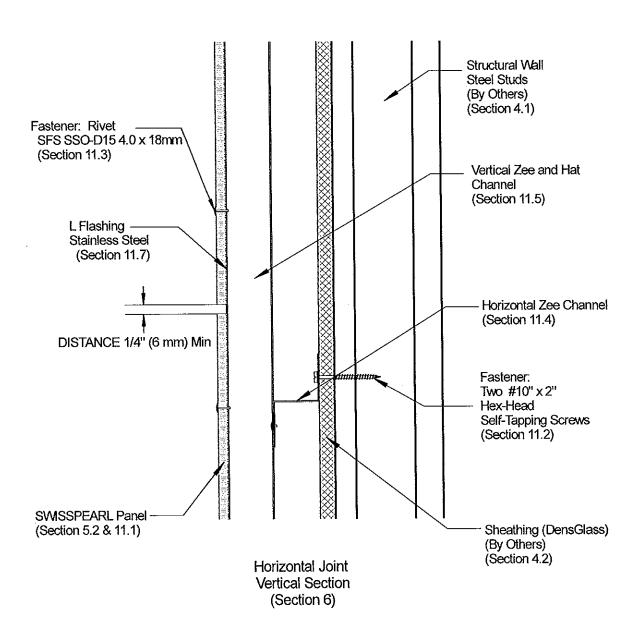
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# SIDE SECTION VIEW

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TITLE: SWISSPEARL FAÇADE SYSTEM HORIZONTAL JOINT DETAIL

AMES L. BUCKNER, P.E.

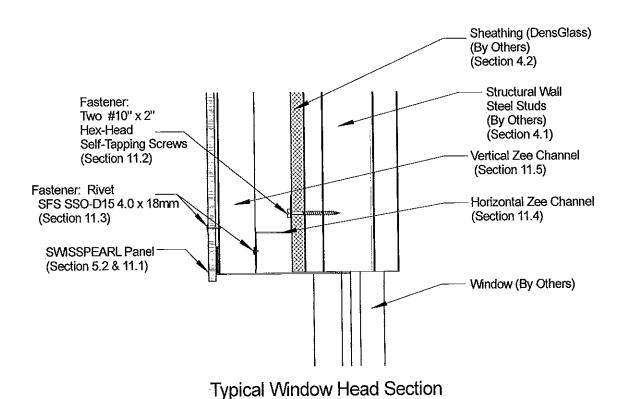
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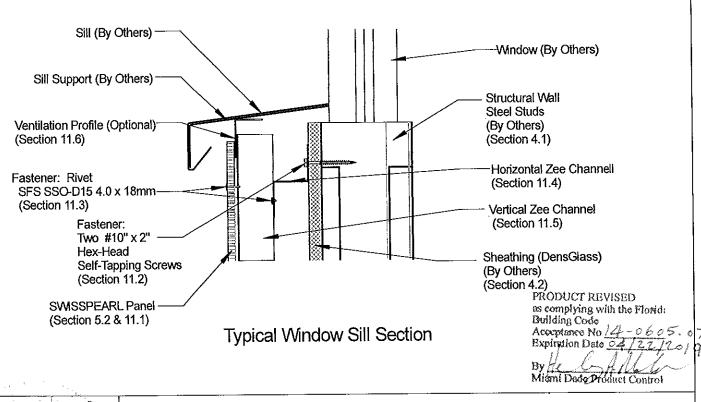
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JAMES L. BUCKNER, P.E. FLORIDA P.E. #31242 TITLE: SWISSPEARL FAÇADE SYSTEM
WINDOW, SEAL AND HEAD DETAILS

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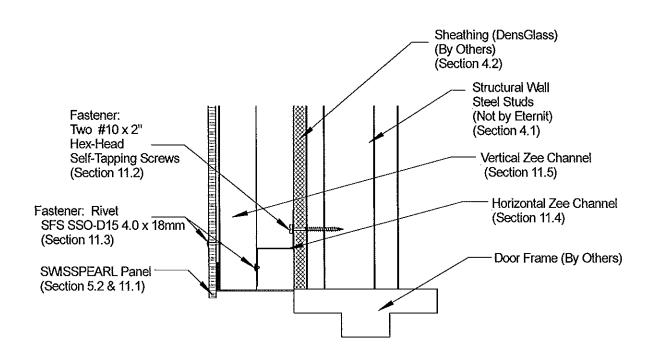
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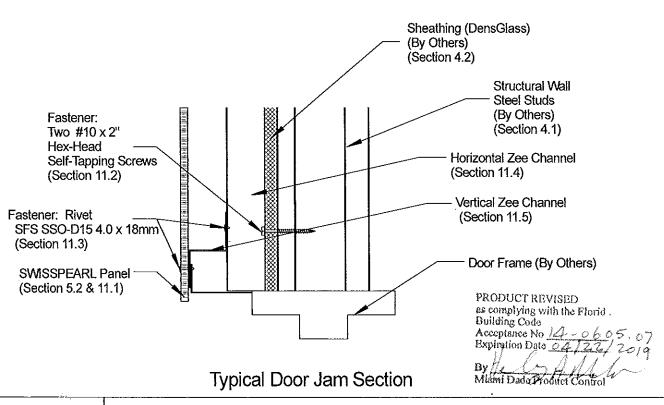
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# Typical Door Head Section



JAMES L. BUCKNER, P.E.

TITLE: SWISSPEARL FAÇADE SYSTEM DOOR HEAD AND JAMB DETAILS

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